



## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[RTID 0648-XB819]

#### **Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of modified Letter of Authorization.

**SUMMARY:** In accordance with the Marine Mammal Protection Act (MMPA), as amended, its implementing regulations, and NMFS' MMPA Regulations for Taking Marine Mammals Incidental to Geophysical Surveys Related to Oil and Gas Activities in the Gulf of Mexico, notification is hereby given that NMFS has modified a Letter of Authorization (LOA) issued to Shell Offshore Inc. (Shell) on December 2, 2021, for the take of marine mammals incidental to geophysical survey activity in the Gulf of Mexico.

**DATES:** The modified LOA is effective through August 31, 2022.

**ADDRESSES:** The modified LOA and modification request, original LOA and LOA request, and supporting documentation are available online at:

[www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-gulf-mexico](https://www.fisheries.noaa.gov/action/incidental-take-authorization-oil-and-gas-industry-geophysical-survey-activity-gulf-mexico). In case of problems accessing these documents, please call the contact listed below (see **FOR FURTHER INFORMATION CONTACT**).

**FOR FURTHER INFORMATION CONTACT:** Ben Laws, Office of Protected Resources, NMFS, (301) 427-8401.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

An authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

Except with respect to certain activities not pertinent here, the MMPA defines “harassment” as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment); or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).

On January 19, 2021, we issued a final rule with regulations to govern the unintentional taking of marine mammals incidental to geophysical survey activities conducted by oil and gas industry operators, and those persons authorized to conduct activities on their behalf (collectively “industry operators”), in Federal waters of the U.S. Gulf of Mexico (GOM) over the course of 5 years (86 FR 5322). The rule was based on

our findings that the total taking from the specified activities over the five-year period will have a negligible impact on the affected species or stock(s) of marine mammals and will not have an unmitigable adverse impact on the availability of those species or stocks for subsistence uses. The rule became effective on April 19, 2021.

Our regulations at 50 CFR 217.180 *et seq.* allow for the issuance of LOAs to industry operators for the incidental take of marine mammals during geophysical survey activities and prescribe the permissible methods of taking and other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat (often referred to as mitigation), as well as requirements pertaining to the monitoring and reporting of such taking. Under 50 CFR 217.186(e), issuance of an LOA shall be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under these regulations and a determination that the amount of take authorized under the LOA is of no more than small numbers.

### **Summary of Request and Analysis**

NMFS issued an LOA to Shell on December 2, 2021, effective through August 31, 2022, for the take of marine mammals incidental to a 3D ocean bottom node (OBN) survey of Mississippi Canyon Lease Block 809 and portions of the surrounding approximately 143 lease blocks in the Ursa development area (see Section F in Shell's application). Shell initially anticipated conducting a total of 45 days of sound source operation over the period of LOA effectiveness (over a total survey period of 61 days). The survey activity itself is permitted under Bureau of Ocean Energy Management (BOEM) permit L21-036. Please see the Federal Register notice of issuance (86 FR 69622; December 8, 2021) for additional detail regarding the LOA and the survey activity.

Since issuance of the LOA, no survey work has occurred under that LOA. Shell has been conducting survey activity in the same lease block areas under its existing BOEM permit L20-029, which was issued during a litigation settlement agreement prior to

NMFS' MMPA rule becoming effective. As a result of unforeseen delays in survey effort under BOEM permit L20-029, Shell now expects that it will be necessary to shift some of that effort to the subsequent period (under BOEM permit L21-036) addressed through NMFS' December 2, 2021, LOA, and has requested modification of the LOA accordingly. Thus Shell's revised estimate of survey effort for the LOA includes 63 days of sound source operation rather than 45. There are no other changes to Shell's planned activity.

Consistent with the preamble to the final rule, the survey effort proposed by Shell in its request for a modification to the existing LOA was used to develop LOA-specific take estimates based on the acoustic exposure modeling results described in the preamble (86 FR 5322, 5398; January 19, 2021). In order to generate the appropriate take number for authorization, the following information was considered: (1) survey type; (2) location (by modeling zone<sup>1</sup>); (3) number of days; and (4) season.<sup>2</sup> The acoustic exposure modeling performed in support of the rule provides 24-hour exposure estimates for each species, specific to each modeled survey type in each zone and season. Of the planned 63 days of sound source operation, Shell indicates that 28 days would occur in winter and 35 days in summer. Previously, the seasonal distribution of survey days was considered unknown and the take estimates for each species were based on the season that produced the greater value. There are no other changes to the information used in producing the take estimates. NMFS' prior assumptions regarding the likelihood of encounter for Rice's whales<sup>3</sup> and killer whales remain valid and are incorporated by reference here (86 FR 69622; December 8, 2021). Please see the original notice of issuance for the LOA for additional detail regarding the assumptions made in generating the take estimates and regarding the aforementioned species.

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<sup>1</sup> For purposes of acoustic exposure modeling, the GOM was divided into seven zones. Zone 1 is not included in the geographic scope of the rule.

<sup>2</sup> For purposes of acoustic exposure modeling, seasons include Winter (December-March) and Summer (April-November).

<sup>3</sup> The final rule refers to the GOM Bryde's whale (*Balaenoptera edeni*). These whales were subsequently described as a new species, Rice's whale (*Balaenoptera ricei*) (Rosel *et al.*, 2021).

Updated take numbers for the modified LOA are indicated below (see Table 1).

Based on the results of our analysis, NMFS has determined that the level of taking authorized through the LOA is consistent with the findings made for the total taking allowable under the regulations. See Table 1 in this notice and Table 9 of the rule.

### **Small Numbers Determinations**

Under the GOM rule, NMFS may not authorize incidental take of marine mammals in an LOA if it will exceed “small numbers.” In short, when an acceptable estimate of the individual marine mammals taken is available, if the estimated number of individual animals taken is up to, but not greater than, one-third of the best available abundance estimate, NMFS will determine that the numbers of marine mammals taken of a species or stock are small. For more information please see NMFS’ discussion of the MMPA’s small numbers requirement provided in the final rule (86 FR 5322, 5438; January 19, 2021).

The take numbers for authorization are determined as described above in the **Summary of Request and Analysis** section. Subsequently, the total incidents of harassment for each species are multiplied by scalar ratios to produce a derived product that better reflects the number of individuals likely to be taken within a survey (as compared to the total number of instances of take), accounting for the likelihood that some individual marine mammals may be taken on more than one day (see 86 FR 5322, 5404; January 19, 2021). The output of this scaling, where appropriate, is incorporated into an adjusted total take estimate that is the basis for NMFS’ small numbers determinations, as depicted in Table 1.

This product is used by NMFS in making the necessary small numbers determinations, through comparison with the best available abundance estimates (see discussion at 86 FR 5322, 5391; January 19, 2021). For this comparison, NMFS’ approach is to use the maximum theoretical population, determined through review of current stock

assessment reports (SAR; [www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments](http://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments)) and model-predicted abundance information (<https://seamap.env.duke.edu/models/Duke/GOM/>). For the latter, for taxa where a density surface model could be produced, we use the maximum mean seasonal (*i.e.*, 3-month) abundance prediction for purposes of comparison as a precautionary smoothing of month-to-month fluctuations and in consideration of a corresponding lack of data in the literature regarding seasonal distribution of marine mammals in the GOM.

Information supporting the small numbers determinations is provided in Table 1.

**Table 1. Take Analysis, Ursa LOA.**

Species	Authorized take	Scaled take <sup>1</sup>	Abundance <sup>2</sup>	Percent abundance
Rice's whale	0	n/a	51	n/a
Sperm whale	1,650	698.1	2,207	31.6
<i>Kogia</i> spp.	611 <sup>3</sup>	218.5	4,373	5.0
Beaked whales	7,197	726.9	3,768	19.3
Rough-toothed dolphin	1,237	354.9	4,853	7.3
Bottlenose dolphin	5,760	1,653.1	176,108	0.9
Clymene dolphin	3,439	987.1	11,895	8.3
Atlantic spotted dolphin	2,339	671.3	74,785	0.9
Pantropical spotted dolphin	15,608	4,479.4	102,361	4.4
Spinner dolphin	4,182	1,200.3	25,114	4.8
Striped dolphin	1,343	385.5	5,229	7.4
Fraser's dolphin	394	113.1	1,665	6.8
Risso's dolphin	1,010	297.9	3,764	7.9
Melon-headed whale	2,306	680.4	7,003	9.7
Pygmy killer whale	538	158.7	2,126	7.5
False killer whale	856	252.5	3,204	7.9
Killer whale	7	n/a	267	2.6
Short-finned pilot whale	667	196.8	1,981	9.9

<sup>1</sup>Scalar ratios were applied to "Authorized Take" values as described at 86 FR 5322, 5404 (January 19, 2021) to derive scaled take numbers shown here.

<sup>2</sup>Best abundance estimate. For most taxa, the best abundance estimate for purposes of comparison with take estimates is considered here to be the model-predicted abundance (Roberts *et al.*, 2016). For those taxa where a density surface model predicting abundance by month was produced, the maximum mean seasonal abundance was used. For those taxa where abundance is not predicted by month, only mean annual abundance is available. For the killer whale, the larger estimated SAR abundance estimate is used.

<sup>3</sup>Includes 33 takes by Level A harassment and 578 takes by Level B harassment. Scalar ratio is applied to takes by Level B harassment only; small numbers determination made on basis of scaled Level B harassment take plus authorized Level A harassment take.

Based on the analysis contained herein of Shell's proposed survey activity described in its LOA modification request and the anticipated take of marine mammals,

NMFS finds that small numbers of marine mammals will be taken relative to the affected species or stock sizes and therefore is of no more than small numbers.

### **Authorization**

NMFS has determined that the level of taking for the LOA modification request is consistent with the findings made for the total taking allowable under the incidental take regulations and that the amount of take authorized under the modified LOA is of no more than small numbers. NMFS has modified the LOA to Shell authorizing the take of marine mammals incidental to its planned survey activity, for the reasons described above.

Dated: February 25, 2022.

**Kimberly Damon-Randall,**

*Director, Office of Protected Resources,*

*National Marine Fisheries Service.*

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